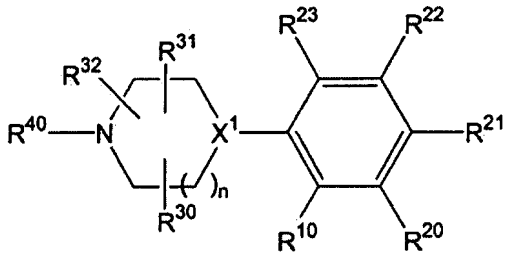
AMENDMENTS TO THE CLAIMS

1. (Original) A compound represented by the following general formula, a salt thereof or a hydrate of the foregoing:



(1)

wherein R10 represents 5- to 10-membered cycloalkyl optionally substituted with a substituent selected from Group A1 or 5- to 10-membered cycloalkenyl optionally substituted with a substituent selected from Group A1,

R20, R21, R22 and R23 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, C2-7 alkylcarbonyl, nitro, amino, mono(C1-6 alkyl)amino, di(C1-6 alkyl)amino, C1-6 alkyl optionally substituted with a substituent selected from Group B1, C1-6 alkoxy optionally substituted with a substituent selected from Group B1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from Group C1 or a 5- to 10-membered heteroaryl ring group optionally substituted with a substituent selected from Group C1,

R30, R31 and R32 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, carboxyl, C1-6 alkyl, C1-6 alkoxy or C2-7 alkoxycarbonyl, or

two of R30, R31 and R32 bond together to form oxo (=O) or methylene (-CH_2-) and the other represents hydrogen, hydroxyl, halogen, cyano, carboxyl, C1-6 alkyl, C1-6 alkoxy or C2-7 alkoxycarbonyl,

R40 represents C1-10 alkyl optionally substituted with a substituent selected from Group D1, 3- to 8-membered cycloalkyl optionally substituted with a substituent selected from Group E1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from Group E1, C2-7 alkenyl optionally substituted with a substituent selected from Group F1, C2-7 alkynyl optionally substituted with a substituent selected from Group F1, C2-7 alkylcarbonyl optionally substituted with a substituent selected from Group G1, mono(C1-6 alkyl)aminocarbonyl, 4- to 8-membered heterocyclic carbonyl, C2-7 alkoxycarbonyl or C1-6 alkylsulfonyl,

n represents an integer of 0, 1 or 2, and

X1 represents CH or nitrogen,

wherein Group A1 consists of hydroxyl, halogen, cyano, C1-6 alkoxy, phenyl optionally substituted with a substituent selected from Group C1, C1-6 alkyl, C1-6 haloalkyl and C2-7 alkylene, where C2-7 alkylene is permissible only in the case that a spiro union is formed together with the substituted 5- to 10-membered cycloalkyl or the substituted 5- to 10-membered cycloalkenyl,

Group B1 consists of halogen, C2-7 alkoxycarbonyl and carboxyl,

Group C1 consists of cyano, halogen, C1-6 alkyl and C1-6 alkoxy,

Group D1 consists of hydroxyl, halogen, cyano, C1-6 alkoxy, C1-6 alkylthio, C1-6 alkylsulfonyl, C1-6 alkylsulfinyl, mono(C1-6 alkyl)amino, di(C1-6 alkyl)amino, C2-7

alkylcarbonylamino, 3- to 8-membered cycloalkyl optionally substituted with a substituent selected from Group H1, C2-7 alkoxycarbonyl, carboxyl, a 4- to 8-membered heterocyclic group, a 5- to 10-membered heteroaryl ring group, a 6- to 10-membered aryl ring group, C2-7 alkylcarbonyl, a 6- to 10-membered aryl ring carbonyl group, aminocarbonyl, mono(C1-6 alkyl)aminocarbonyl optionally substituted with halogen, mono(3- to 8-membered cycloalkyl)aminocarbonyl, mono(C2-7 alkoxyalkyl)aminocarbonyl, di(C1-6 alkyl)aminocarbonyl, mono(5- to 10-membered heteroaryl ring)aminocarbonyl, 4- to 8-membered heterocyclic carbonyl optionally substituted with C1-6 alkyl, and 5- to 10-membered heteroaryl ring carbonyl,

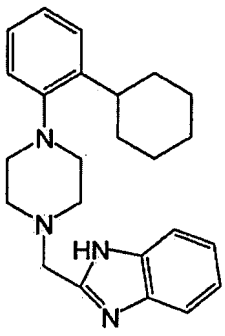
Group E1 consists of halogen, C1-6 alkoxy, oxo (=O) and C1-6 alkyl,

Group F1 consists of halogen and C1-6 alkoxy,

Group G1 consists of 3- to 8-membered cycloalkyl, and

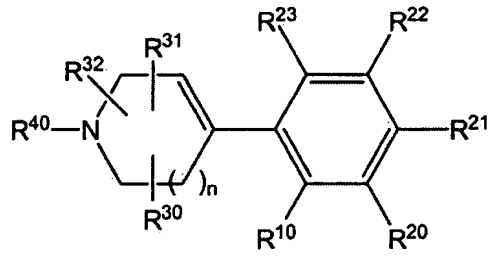
Group H1 consists of hydroxyl, C1-6 haloalkyl, C1-6 alkyl, C2-7 alkoxyalkyl, mono(C1-6 alkyl)aminocarbonyl, di(C1-6 alkyl)aminocarbonyl, C2-7 alkoxycarbonyl, carboxyl and C2-7 cyanoalkyl,

with the proviso that a compound represented by the formula



is excepted.

2. (Original) A compound represented by the following general formula, a salt thereof or a hydrate of the foregoing:



(100)

wherein R10 represents 5- to 10-membered cycloalkyl optionally substituted with a substituent selected from Group A1 or 5- to 10-membered cycloalkenyl optionally substituted with a substituent selected from Group A1,

R20, R21, R22 and R23 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, C2-7 alkylcarbonyl, nitro, amino, mono(C1-6 alkyl)amino, di(C1-6 alkyl)amino, C1-6 alkyl optionally substituted with a substituent selected from Group B1, C1-6 alkoxy optionally substituted with a substituent selected from Group B1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from Group C1 or a 5- to 10-membered heteroaryl ring group optionally substituted with a substituent selected from Group C1,

R30, R31 and R32 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, carboxyl, C1-6 alkyl, C1-6 alkoxy or C2-7 alkoxycarbonyl, or

two of R30, R31 and R32 bond together to form oxo (=O) or methylene (-CH_2-) and the other represents hydrogen, hydroxyl, halogen, cyano, carboxyl, C1-6 alkyl, C1-6 alkoxy or C2-7 alkoxycarbonyl,

R40 represents C1-10 alkyl optionally substituted with a substituent selected from Group D1, 3- to 8-membered cycloalkyl optionally substituted with a substituent selected from Group E1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from Group E1, C2-7 alkenyl optionally substituted with a substituent selected from Group F1, C2-7 alkynyl optionally substituted with a substituent selected from Group F1, C2-7 alkylcarbonyl optionally substituted with a substituent selected from Group G1, mono(C1-6 alkyl)aminocarbonyl, 4- to 8-membered heterocyclic carbonyl, C2-7 alkoxycarbonyl or C1-6 alkylsulfonyl,

n represents an integer of 0, 1 or 2, and

wherein Group A1 consists of hydroxyl, halogen, cyano, C1-6 alkoxy, phenyl optionally substituted with a substituent selected from Group C1, C1-6 alkyl, C1-6 haloalkyl and C2-7 alkylene, where C2-7 alkylene is permissible only in the case that a spiro union is formed together with the substituted 5- to 10-membered cycloalkyl or the substituted 5- to 10-membered cycloalkenyl,

Group B1 consists of halogen, C2-7 alkoxycarbonyl and carboxyl,

Group C1 consists of cyano, halogen, C1-6 alkyl and C1-6 alkoxy,

Group D1 consists of hydroxyl, halogen, cyano, C1-6 alkoxy, C1-6 alkylthio, C1-6 alkylsulfonyl, C1-6 alkylsulfinyl, mono(C1-6 alkyl)amino, di(C1-6 alkyl)amino, C2-7 alkylcarbonylamino, 3- to 8-membered cycloalkyl optionally substituted with a substituent selected from Group H1, C2-7 alkoxycarbonyl, carboxyl, a 4- to 8-membered heterocyclic group, a 5- to 10-membered heteroaryl ring group, a 6- to 10-membered aryl ring group, C2-7 alkylcarbonyl, a 6- to 10-membered aryl ring carbonyl group, aminocarbonyl, mono(C1-6

alkyl)aminocarbonyl optionally substituted with halogen, mono(3- to 8-membered cycloalkyl)aminocarbonyl, mono(C2-7 alkoxyalkyl)aminocarbonyl, di(C1-6 alkyl)aminocarbonyl, mono(5- to 10-membered heteroaryl ring)aminocarbonyl, 4- to 8-membered heterocyclic carbonyl optionally substituted with C1-6 alkyl, and 5- to 10-membered heteroaryl ring carbonyl,

Group E1 consists of halogen, C1-6 alkoxy, oxo (=O) and C1-6 alkyl,

Group F1 consists of halogen and C1-6 alkoxy,

Group G1 consists of 3- to 8-membered cycloalkyl, and

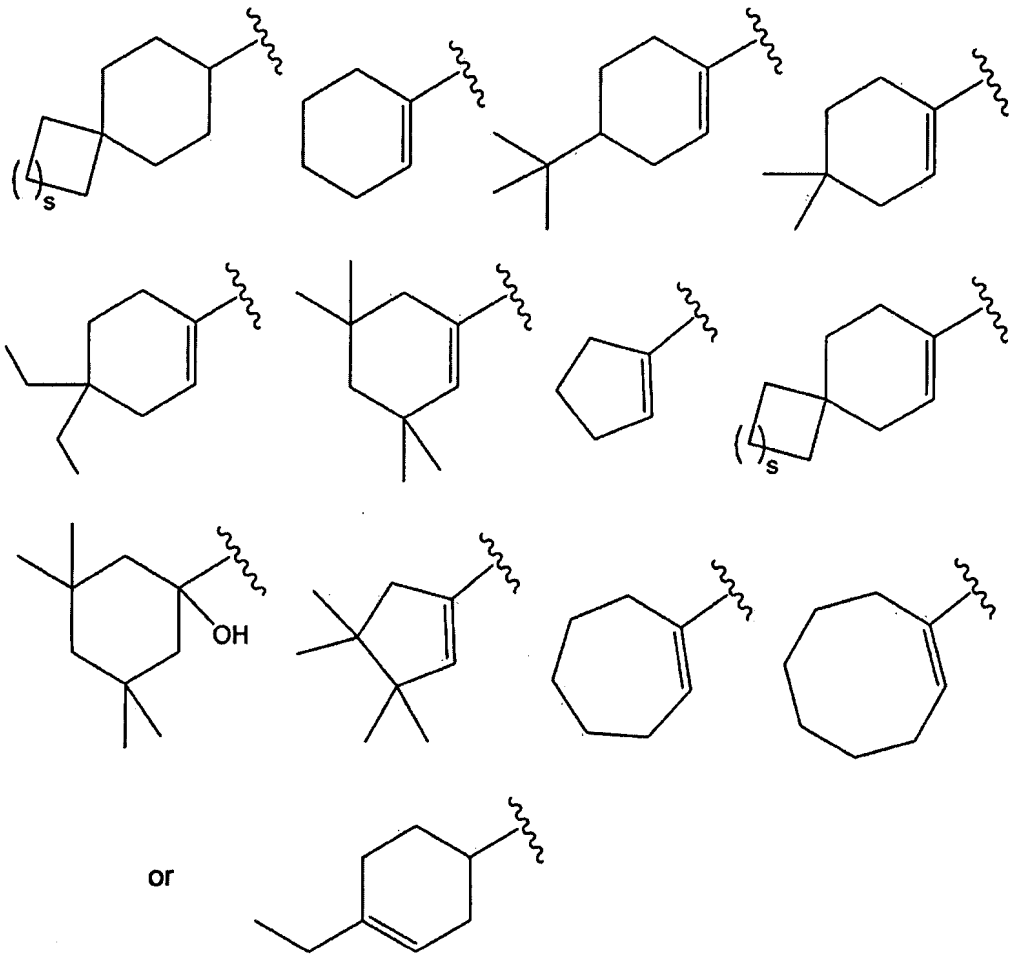
Group H1 consists of hydroxyl, C1-6 haloalkyl, C1-6 alkyl, C2-7 alkoxyalkyl, mono(C1-6 alkyl)aminocarbonyl, di(C1-6 alkyl)aminocarbonyl, C2-7 alkoxycarbonyl, carboxyl and C2-7 cyanoalkyl.

3. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R10 represents 5- to 10-membered cycloalkyl optionally substituted with a substituent selected from Group A2, or 5- to 10-membered cycloalkenyl optionally substituted with a substituent selected from Group A2,

wherein Group A2 consists of hydroxyl, phenyl, C1-6 alkyl, C1-6 haloalkyl and C2-7 alkylene, where C2-7 alkylene is permissible only in the case that a spiro union is formed together with the substituted 5- to 10-membered cycloalkyl or the substituted 5- to 10-membered cycloalkenyl.

4. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R10 represents 5- to 10-membered cycloalkyl optionally substituted with hydroxyl, phenyl, C1-6 alkyl, C1-6 haloalkyl, 1,2-ethylene, trimethylene, tetramethylene or pentamethylene, or 5- to 10-membered cycloalkenyl optionally substituted with hydroxyl, phenyl, C1-6 alkyl, C1-6 haloalkyl, 1,2-ethylene, trimethylene, tetramethylene or pentamethylene, where 1,2-ethylene, trimethylene, tetramethylene or pentamethylene is permissible only in the case that a spiro union is formed together with the substituted 5- to 10-membered cycloalkyl or the substituted 5- to 10-membered cycloalkenyl.

5. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R10 represents cyclohexyl, 4-t-butylcyclohexyl, 4,4-dimethylcyclohexyl, 4,4-diethylcyclohexyl, 3,3,5,5-tetramethylcyclohexyl, 3,5-dimethylcyclohexyl, 4-phenylcyclohexyl, 4-trifluoromethylcyclohexyl, 4-n-butylcyclohexyl, cyclopentyl, 3,3,4,4-tetramethylcyclopentyl, cycloheptyl, cyclooctyl or a group represented by the formula:



wherein s represents an integer of 0, 1, 2 or 3.

6. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R20, R21, R22 and R23 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, C2-7 alkylcarbonyl, nitro, amino, mono(C1-6 alkyl)amino, di(C1-6 alkyl)amino, C1-6 alkyl optionally substituted with a substituent selected from Group B1, C1-6 alkoxy optionally substituted with a substituent selected from Group B1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from

Group C1 or a 5- to 6-membered heteroaryl ring group optionally substituted with a substituent selected from Group C1.

7. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R20, R21, R22 and R23 may be the same or different and each represents hydrogen, hydroxyl, halogen, cyano, acetyl, nitro, amino, monomethylamino, monoethylamino, dimethylamino, C1-6 alkyl optionally substituted with a substituent selected from Group B1, C1-6 alkoxy optionally substituted with a substituent selected from Group B1, a 4- to 8-membered heterocyclic group optionally substituted with a substituent selected from Group C1, where the 4- to 8-membered heterocyclic group is derived by eliminating hydrogen linked to nitrogen of a 4- to 8-membered heterocycle, or a 5- to 6-membered heteroaryl ring group optionally substituted with a substituent selected from Group C2,

wherein Group C2 consists of C1-6 alkoxy and C1-6 alkyl.

8. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R20, R21, R22 and R23 may be the same or different and each represents hydrogen, halogen, cyano, acetyl, monomethylamino, monoethylamino, dimethylamino, methyl, methoxy, ethoxy, morpholin-4-yl optionally substituted with a substituent selected from Group C2, piperidin-1-yl optionally substituted with a substituent selected from Group C2, pyrrolidin-1-yl optionally substituted with a substituent selected from Group C2, azetidin-1-yl, pyridin-2-yl or pyridin-3-yl.

9. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein at least two of R20, R21, R22 and R23 are hydrogen, and the remaining groups, which may be the same or different, are hydrogen, halogen, cyano, acetyl, monomethylamino, monoethylamino, dimethylamino, methyl, methoxy, ethoxy, morpholin-4-yl optionally substituted with a substituent selected from Group C2, piperidin-1-yl optionally substituted with a substituent selected from Group C2, pyrrolidin-1-yl optionally substituted with a substituent selected from Group C2, azetidin-1-yl, pyridin-2-yl or pyridin-3-yl.

10. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein three of R20, R21, R22 and R23 are hydrogen, and the remaining group is hydrogen, fluorine, cyano, dimethylamino, methyl, methoxy, morpholin-4-yl optionally substituted with a substituent selected from Group C3, piperidin-1-yl optionally substituted with a substituent selected from Group C3 or pyrrolidin-1-yl optionally substituted with a substituent selected from Group C3,

wherein Group C3 consists of methoxy, ethoxy and methyl.

11. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R30, R31 and R32 may be the same or different and each represents hydrogen or C1-6 alkyl, or R30 and R31 bond together to form oxo (=O) and R32 represents hydrogen or C1-6 alkyl.

12. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R30, R31 and R32 may be the same or different and each represents hydrogen or methyl, or R30 and R31 bond together to form oxo (=O) and R32 represents hydrogen or methyl.

13. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein all of R30, R31 and R32 represent hydrogen.

14. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R40 represents C1-6 alkyl optionally substituted with a substituent selected from Group D1, 3- to 8-membered cycloalkyl optionally substituted with a substituent selected from Group E1, C2-7 alkenyl, C2-7 alkynyl or C2-7 alkylcarbonyl.

15. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R40 represents C1-6 alkyl optionally substituted with a substituent selected from Group D2,

wherein Group D2 consists of hydroxyl, halogen, cyano, C1-6 alkoxy, 3- to 8-membered cycloalkyl, a 4- to 8-membered heterocyclic group, mono(C1-6 alkyl)aminocarbonyl, di(C1-6 alkyl)aminocarbonyl, C2-7 alkylcarbonyl, a 5-membered heteroaryl ring group, 4- to 8-membered heterocyclic carbonyl or phenyl.

16. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein R40 represents n-propyl, n-butyl, n-pentyl, isobutyl, ethylcarbonylmethyl, methoxyethyl, ethoxyethyl, cyclopropylmethyl or tetrahydropyran-4-ylmethyl.

17. (Previously Presented) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, wherein n represents an integer of 1.

18. (Previously Presented) The compound according to claim 1, the salt thereof or the hydrate of the foregoing, wherein X1 represents nitrogen.

19. (**Currently Amended**) The compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing, selected from the compound group consisting of

1-[2-(4,4-dimethylcyclohexyl)-5-methoxyphenyl]-4-pentylpiperazine,

1-butyl-4-[2-(4-t-butylcyclohex-1-enyl)-4-(4-methoxypiperidin-1-yl)phenyl]piperazine,

1-butyl-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,

~~1-cyclopropylmethyl-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,~~

2-{4-[2-(4-t-butylcyclohexyl)phenyl]piperazin-1-yl}-*N*-ethylacetamide,

cis-4-(4-t-butylcyclohexyl)-3-(4-butylpiperazin-1-yl)benzonitrile,

trans-4-(4-t-butylcyclohexyl)-3-(4-butylpiperazin-1-yl)benzonitrile,

1-butyl-4-(2-cyclohexylphenyl)piperazine,

1-butyl-4-[2-(4-t-butylcyclohexyl)phenyl]piperazine,

1-{4-[2-(4,4-dimethylcyclohexyl)phenyl]piperazin-1-yl}butan-2-one,

4-[3-(4-t-butylcyclohex-1-enyl)-4-(4-butylpiperazin-1-yl)phenyl]morpholine,

1-[2-(4-t-butylcyclohexyl)phenyl]-4-(2-methoxyethyl)piperazine,

1-[2-(4-t-butylcyclohex-1-enyl)-4-(4-methoxypiperidin-1-yl)phenyl]-4-cyclopropylmethylpiperazine,

1-(tetrahydropyran-4-ylmethyl)-4-[2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]piperazine,

4-[4-(4-propylpiperazin-1-yl)-3-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]morpholine,

1-{4-[2-(4,4-diethylcyclohex-1-enyl)-4-morpholin-4-ylphenyl]piperazin-1-yl}butan-2-one,

1-propyl-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,

1-butyl-4-[4-(4-methoxypiperidin-1-yl)-2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,

1-butyl-4-[2-(3,5-dimethylcyclohexyl)phenyl]piperazine,

1-[2-(4,4-diethylcyclohexyl)phenyl]-4-(tetrahydropyran-4-ylmethyl)piperazine,

4-[4-(4-butylpiperazin-1-yl)-3-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]morpholine,

4-[4-(4-butylpiperazin-1-yl)-3-(3,3,5,5-tetramethylcyclohexyl)phenyl]morpholine,

1-[4-(4-ethoxypiperidin-1-yl)-2-(3,3,5,5-tetramethylcyclohexyl)phenyl]-4-propylpiperazine,

cis-4-[4-(4-butylpiperazin-1-yl)-3-(4,4-dimethylcyclohexyl)phenyl]-2,6-dimethylmorpholine,

4-{4-(4-pentylpiperazin-1-yl)-3-spiro[2.5]oct-6-ylphenyl}morpholine,

1-[3-fluoro-2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]-4-propylpiperazine,

1-cyclopropylmethyl-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]-1,2,3,6-tetrahydropyridine,

1-butyl-4-{2-(3,3,4,4-tetramethylcyclopentyl)phenyl}piperazine,

1-butyl-4-[2-(4,4-dimethylcyclohexyl)-4-(4-ethoxypiperidin-1-yl)phenyl]piperazine,

1-butyl-4-[2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]piperazine,

1-cyclopropylmethyl-4-[2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]piperazine,

1-{4-[2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]piperazin-1-yl}butan-2-one,

1-(2-methoxyethyl)-4-[2-(3,3,5,5-tetramethylcyclohex-1-enyl)phenyl]piperazine,

1-{4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazin-1-yl}butan-2-one,

1-(2-methoxyethyl)-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,

4-[4-(4-butylpiperazin-1-yl)-5-(4,4-diethylcyclohexyl)-2-methoxyphenyl]-morpholine,

1-butyl-4-(2-spiro[4.5]dec-8-ylphenyl)piperazine,

1-[2-(4,4-dimethylcyclohex-1-enyl)phenyl]-4-isobutylpiperazine,

1-cyclopropylmethyl-4-[2-(4,4-diethylcyclohexyl)-4-(4-methoxypiperidin-1-yl)phenyl]piperazine,

4-[3-(4,4-dimethylcyclohexyl)-4-(4-isobutylpiperazin-1-yl)phenyl]morpholine,

{4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazin-1-yl}acetonitrile,

1-(2-ethoxyethyl)-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperazine,

(R)-1-butyl-4-[2-(4,4-diethylcyclohexyl)-4-(3-methoxypyrrolidin-1-yl)phenyl]piperazine,

1-[4-methyl-2-(3,3,5,5-tetramethylcyclohexyl)phenyl]-4-propylpiperazine,

1-[4-methoxy-2-(3,3,5,5-tetramethylcyclohexyl)phenyl]-4-(tetrahydropyran-4-ylmethyl)piperazine,

1-butyl-4-[2-(3,3,5,5-tetramethylcyclohexyl)phenyl]piperidine,

1-isobutyl-4-[2-(3,3,4,4-tetramethylcyclopent-1-enyl)phenyl]piperazine, and

1-[2-(4-cyclopropylmethylpiperazin-1-yl)phenyl]-3,3,5,5-tetramethylcyclohexanol.

20. **(Currently amended)** A medicament composition comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

21. **(Currently amended)** A cell adhesion inhibitor or cell infiltration inhibitor composition comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

22. **(Currently amended)** A therapeutic or prophylactic composition ~~agent~~ for an inflammatory disease or an autoimmune disease, comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

23. **(Currently amended)** A therapeutic or prophylactic composition ~~agent~~ for ~~an~~ inflammatory bowel disease, irritable bowel syndrome, rheumatoid arthritis, psoriasis, multiple sclerosis, asthma or atopic dermatitis, comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

24. **(Currently amended)** A therapeutic or prophylactic composition ~~agent~~ for ~~an~~ inflammatory bowel disease, comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

25. **(Currently amended)** A therapeutic or prophylactic composition ~~agent~~ for ulcerative colitis or Crohn's disease, comprising the compound according to claim 1 or 2, the salt thereof or the hydrate of the foregoing in association with a pharmaceutically acceptable additive.

26. **(Canceled)**